Claims

1. A toothbrush comprising:
an elongated handle with handle grip on first end joined to handle head on second end via neck of said elongated handle; and
a brush head having a bristle pad with array of bristles projecting from bottom side of said bristle pad and a casing with its access, is disposed on top side of said bristle pad,
characterized said elongated handle is engaged with said brush head by means of inserting said handle head into said casing through its said access, which said casing is partially or entirely elastic, and said elongated handle can be disengaged from said brush head after engagement of said brush head with said elongated handle by said handle head taken out of said cavity through the said access.

2. The toothbrush as claimed in claim 1, wherein said brush head is further secured to said handle head by means of a locking means, said locking means is a toolless locking means formed by at least one pair of fitting extended pin and hole, where said extended pin located on said handle head and said hole on said brush head or vice versa, location of said extended pin and said hole must be in such a manner that said extended pin will securely fit in said hole after said handle head has been fully inserted into said brush head.

3. The toothbrush as claimed in claim 1, wherein said casing is formed by a base portion, opposing side walls and a bristle pad, where said base portion is joined to said bristle pad by means of said opposing side walls.

4. The toothbrush as claimed in claim 3, wherein said casing having an opening to a cavity of said casing is located at first end of said brush head, where said cavity is defined by interior surfaces of said base portion, said opposing side walls and top side of said bristle pad.

5. The toothbrush as claimed in claim 1 or 2, wherein said brush head having its second end enclosed by a second end wall which is joined to both of said bristle pad and said base portion to form part of said casing.

6. The toothbrush as claimed in claim 5, wherein a first end wall opposing second end wall, having said opening is joined to said base portion and said bristle pad to form part of said

casing, where first embodiment of said base portion and said second end wall are made of elastic material.

7. The toothbrush as claimed in claim 6, wherein said opening having the shape corresponds to cross-section of said neck of said handle when said handle head is fully inserted into said casing.

8. The toothbrush as claimed in any claim 2 to 6, wherein said opposing side walls and first end wall are made of said elastic material.

9. The toothbrush as claimed in claim 4, wherein said cavity is also defined by interior surfaces of both first end wall and second end wall where the second embodiment shape of said cavity conforms to shape of said handle head or said cavity having its thickness slightly thinner than the thickness of said handle head, so that said brush head encloses said handle head entirely except the part where said neck leads out of said brush head.

10. The toothbrush as claimed in any claim 1 to 9, wherein said toothbrush having adhesion and suction force that holds said brush head and said handle head together when there is no air in between surfaces of said handle head and surfaces of said cavity.

11. The toothbrush as claimed in any claim 1 to 9, wherein said toothbrush having thicker handle head than the height of said cavity will cause gripping tension of the elastic base to enhance better holding onto the interior surfaces of the casing.

12. The toothbrush as claimed in any claim 1 to 11, wherein said brush head can be formed with its exterior surfaces of said base portion, said opposing side walls and second end wall have textured surfaces in order that they act as a gum massager.

13. The toothbrush as claimed in any claim 1 and 12, wherein said elastic material enables permanent drawings to be imprinted, formed or molded on said casing.

14. The toothbrush as claimed in claim 13, wherein said elastic material is an elastomeric material such as TPE resin and said bristle pad is made of rigid material such as polypropylene or any other cohesive materials that is suitable for planting or tufting arrays of

bristles and said elastic material and said rigid material are easily cohered to form said brush head.

15. The toothbrush as claimed in claim 1 and 14, wherein said neck of said handle can be in the shapes of laterally at an angle to one side so that said brush head is at an angle to said handle grip when the toothbrush is viewed with end-on of said bristles in view; at an angle to one side so that said brush head is at a larger angle to said handle grip when the toothbrush is viewed with side-on of said bristles in view; or any other different angles to cater for different modular handles for different brushing needs.

16. The toothbrush as claimed in claim 15, wherein said handle head of said toothbrush is flat, streamlined, symmetrical about its centre and thicker or equivalent in height to the cavity of said casing.

17. The toothbrush as claimed in claim 2, wherein said extended pin and hole of the pair of locking means can be in any suitable shapes to secure said brush head to said elongated handle.

18. A toothbrush comprising:

an elongated handle with handle grip on first end joined to handle head on second end via neck of said elongated handle;

a brush head having a bristle pad with array of bristles projecting from bottom side of said bristle pad and a casing with its access, is disposed on top side of said bristle pad, said brush head to be fitted into said handle; and

a locking means formed by at least one pair of fitting extended pin located on top side of said handle head and hole located on said brush head to secure said brush head to said elongated handle,

characterized said elongated handle is engaged with said brush head by means of inserting said handle head into said casing through its said access, which said casing is partially or entirely elastic, and said elongated handle can be disengaged from said brush head after engagement of said brush head with said elongated handle by said handle head taken out of said cavity through the said access.

19. The toothbrush as claimed in 18, wherein said hole on the brush head can be a through-hole or blind hole.

20. A toothbrush comprising:

an elongated handle with handle grip on first end joined to handle head on second end via neck of said elongated handle;

a brush head having a bristle pad with array of bristles projecting from bottom side of said bristle pad and a casing with its access, is disposed on top side of said bristle pad, said brush head to be fitted into said handle; and

a locking means formed by at least one pair of fitting extended pin located on top side of said bristle pad and hole located on said handle head to secure said brush head to said elongated handle,

characterized said elongated handle is engaged with said brush head by means of inserting said handle head into said casing through its said access, which said casing is partially or entirely elastic, and said elongated handle can be disengaged from said brush head after engagement of said brush head with said elongated handle by said handle head taken out of said cavity through the said access.

21. The toothbrush as claimed in 20, wherein said hole on the handle head is through-hole or blind hole.

22. The toothbrush as claimed in claim 21, wherein said brush head may be inserted with its bristle facing a certain defined upward direction as well as inserted with its bristle facing a direction opposing said upward direction.

23. The toothbrush as claimed in any claim 1 to 22, wherein said brush head is produced by insert molding, over molding or other existing production methods in the art.

24. The toothbrush as claimed in any claim 1 to 23, wherein said brush head having said casing and said bristle pad in one semi elastic entirety and integrally produced by existing production methods in the art.